WHAT IS CLAIMED IS:

1. A transmission system for controlling the transmission of a multiplexed signal via a path, the system comprising:

a sending apparatus including:

signal dividing means for dividing the multiplexed signal to generate a plurality of divided signals in the STS or STM transmission interface format;

guarantee information adding means for adding guarantee information for guaranteeing the continuity of the divided signals to each of the divided signals to generate transmission signals; and

signal sending means for sending the transmission signals; and

a receiving apparatus including:

signal receiving means for receiving the transmission signals; and

signal restoring means for restoring the multiplexed signal by constructing the divided signals on the basis of the guarantee information.

2. The transmission system according to claim 1, wherein the guarantee information adding means adds at least one of information regarding the type of the multiplexed signal, the frame number of the multiplexed signal, and a division number at the time of dividing the multiplexed

signal to the divided signal as the guarantee information.

3. The transmission system according to claim 1, wherein the guarantee information adding means adds the guarantee information in empty bytes of a path overhead for the divided signal.

4. The transmission system according to claim 1, wherein the receiving apparatus further includes delay information notifying means for giving the sending apparatus delay information regarding delays which have occurred at the time of receiving the transmission signals.

5. The transmission system according to claim 4, wherein on the basis of the delay information, the signal sending means sets the bit rate of each of the transmission signals variable and makes delay correction.

6. The transmission system according to claim 4, wherein the signal sending means overlaps portions of the transmission signals and sends the transmission signals.

7. The transmission system according to claim 6, wherein when the signal receiving means receives the transmission signals, the signal receiving means makes delay correction by making use of an overlap.

8. A sending apparatus for controlling the sending of a signal via a path, the apparatus comprising:

signal dividing means for dividing a multiplexed signal to generate a plurality of divided signals in the STS or STM transmission interface format;

guarantee information adding means for adding guarantee information for guaranteeing the continuity of the divided signals to each of the divided signals to generate transmission signals; and

signal sending means for sending the transmission signals.

9. A receiving apparatus for controlling the receiving of a signal via a path, the apparatus comprising:

signal receiving means for receiving transmission signals consisting of divided signals generated by dividing a multiplexed signal; and

signal restoring means for restoring the multiplexed signal by constructing the divided signals on the basis of guarantee information for guaranteeing the continuity of the divided signals included in the divided signals.

10. A transmission system for controlling the transmission of a multiplexed signal via a section, the system comprising:

a sending apparatus including:

signal dividing means for dividing the

multiplexed signal to generate a plurality of divided signals in the STS or STM transmission interface format;

guarantee information adding means for adding guarantee information for guaranteeing the continuity of the divided signals to each of the divided signals; and

WDM signal sending means for converting the divided signals to which the guarantee information is added to optical signals with wavelengths different from one another to perform wavelength multiplexing on the optical signals and sending the optical signals; and

a receiving apparatus including:

WDM signal receiving means for receiving the optical signals, separating the optical signals according to wavelengths, and converting the optical signals to the divided signals; and

signal restoring means for constructing the divided signals on the basis of the guarantee information to restore the multiplexed signal.

11. The transmission system according to claim 10, wherein the guarantee information adding means adds at least one of information regarding the type of the multiplexed signal, the frame number of the multiplexed signal, and a division number at the time of dividing the multiplexed signal to the divided signal as the guarantee information.

12. The transmission system according to claim 10,

wherein the guarantee information adding means adds the guarantee information in byte C1 of a relay section overhead for the divided signal.

13. A sending apparatus for controlling the sending of a signal via a section, the apparatus comprising:

signal dividing means for dividing a multiplexed signal to generate a plurality of divided signals in the STS or STM transmission interface format;

guarantee information adding means for adding guarantee information for guaranteeing the continuity of the divided signals to each of the divided signals; and

WDM signal sending means for converting the divided signals to which the guarantee information is added to optical signals with wavelengths different from one another to perform wavelength multiplexing on the optical signals and sending the optical signals.

14. A receiving apparatus for controlling the receiving of a signal via a section, the apparatus comprising:

WDM signal receiving means for receiving wavelength-multiplexed optical signals, separating the optical signals according to wavelengths, and converting the optical signals to divided signals generated by dividing a multiplexed signal; and

signal restoring means for restoring the multiplexed

signal by constructing the divided signals on the basis of guarantee information for guaranteeing the continuity of the divided signals included in the divided signals.